	Application No.	Applicant(s)
Notice of Allowability	10/665,289	DEVINS ET AL.
	Examiner	Art Unit
	Joni Hsu	2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *papers received February 14, 2006*.

2. ☒ The allowed claim(s) is/are *29-37*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

     * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

     (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

     (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
        Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

DETAILED ACTION

Response to Amendment

1.   Applicant's arguments, see, filed February 14, 2006, with respect to Claims 29-37 have

been fully considered and are persuasive. The 35 U.S.C. 103(a) rejections of Claims 29-37 has

been withdrawn.

Allowable Subject Matter

2.   Claims 29-37 are allowed.

        The following is an examiner's statement of reasons for allowance:

3.   The prior art taken singly or in combination do not teach or suggest a method comprising

capturing, in a subsystem memory, hardware instructions generated by high-level specification

of operations in a computer program; generating an executable program from the captured

hardware instructions and storing the executable program in the subsystem memory; and

utilizing a subsystem processor to execute the executable program with subsystem hardware

without hardware interrupt processing by the host system, as recited in Claims 29 and 34.

Claims 30-33 and 35-37 depend from these claims, and therefore also contain allowable subject

matter.

4.   The closest prior art (Laksono US006339427B1) teaches a method for offloading

hardware interrupt processing from a host system (10, Figure 1) to a subsystem (12) comprising

capturing, in a subsystem memory (20), instructions generated by specification of operations (44) in a computer program; storing the instructions in the subsystem memory (*host processor generates the operational codes or drawing commands for the graphics processor through a software application, these command codes or operational codes are then sent to the graphics processor and stored in a command FIFO whereafter the graphics processor retrieves the command from the command FIFO and performs any requisite rending operation*, Col. 1, lines 55-61; *processor 10 allocates memory in the form of circular FIFO buffer 16 to store memory display lists*, Col. 3, lines 32-44, *command FIFO 20 includes a series of register 28 containing data representing display command data obtained from the circular HMDL FIFO buffer 16*, Col. 3, lines 48-51); utilizing a subsystem processor to execute the executable program with subsystem hardware (24; *rendering engine 24 obtains the display command data from the command FIFO 20 to determine the appropriate commands to execute for the desired rendering*, Col. 3, lines 51-54) without hardware interrupt processing by the host system (*in the prior art, one method is to use an interrupt based system wherein when the command FIFO is almost full, the graphics controller sends an interrupt to the host processor, the host processor typically has to poll*, Col. 1, line 55-Col. 2, line 14; *host processor does not need to poll the graphics controller to see whether the graphics controller needs commands*, Col. 6, line 61-Col. 7, line 3); wherein the subsystem hardware includes a status register containing status information (Col. 3, line 61-Col. 4, line 9). However, Laksono does not teach that the subsystem memory captures hardware instructions generated by high-level specifications of operations in a computer program, and generating an executable program from the captured hardware instructions and storing the executable program in the subsystem memory.

5.   Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Laksono (US006339427B1) teaches a graphics device employing display command list

handling mechanisms with a host processor (Col. 1, lines 5-9).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joni Hsu whose telephone number is 571-272-7785. The

examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JH
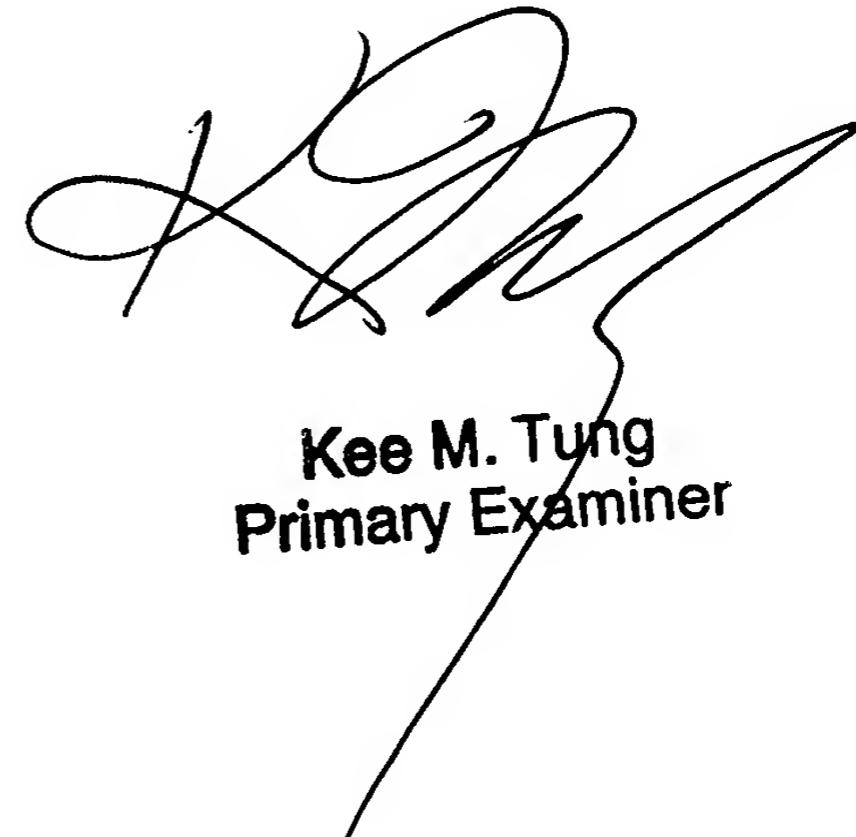
Kee M. Tung
Primary Examiner